FIG.1

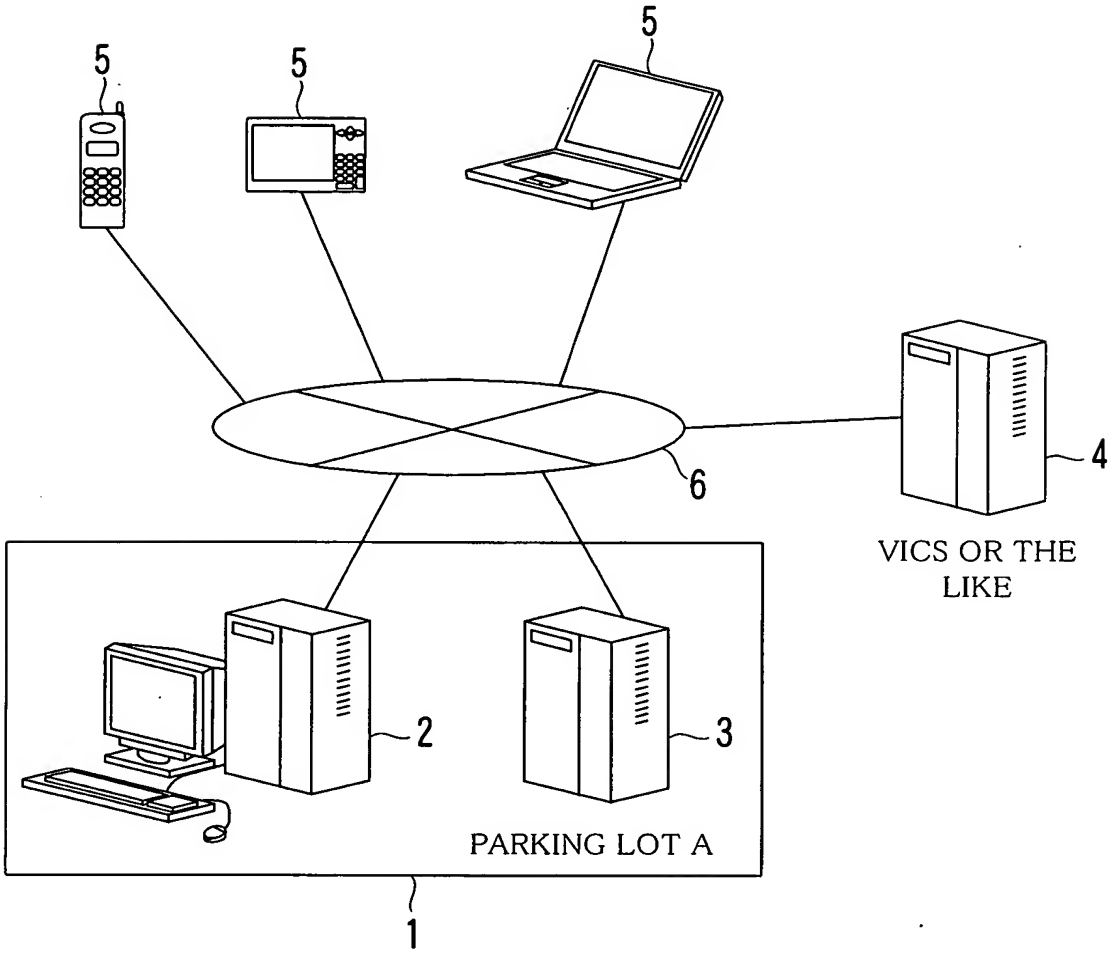


FIG.2

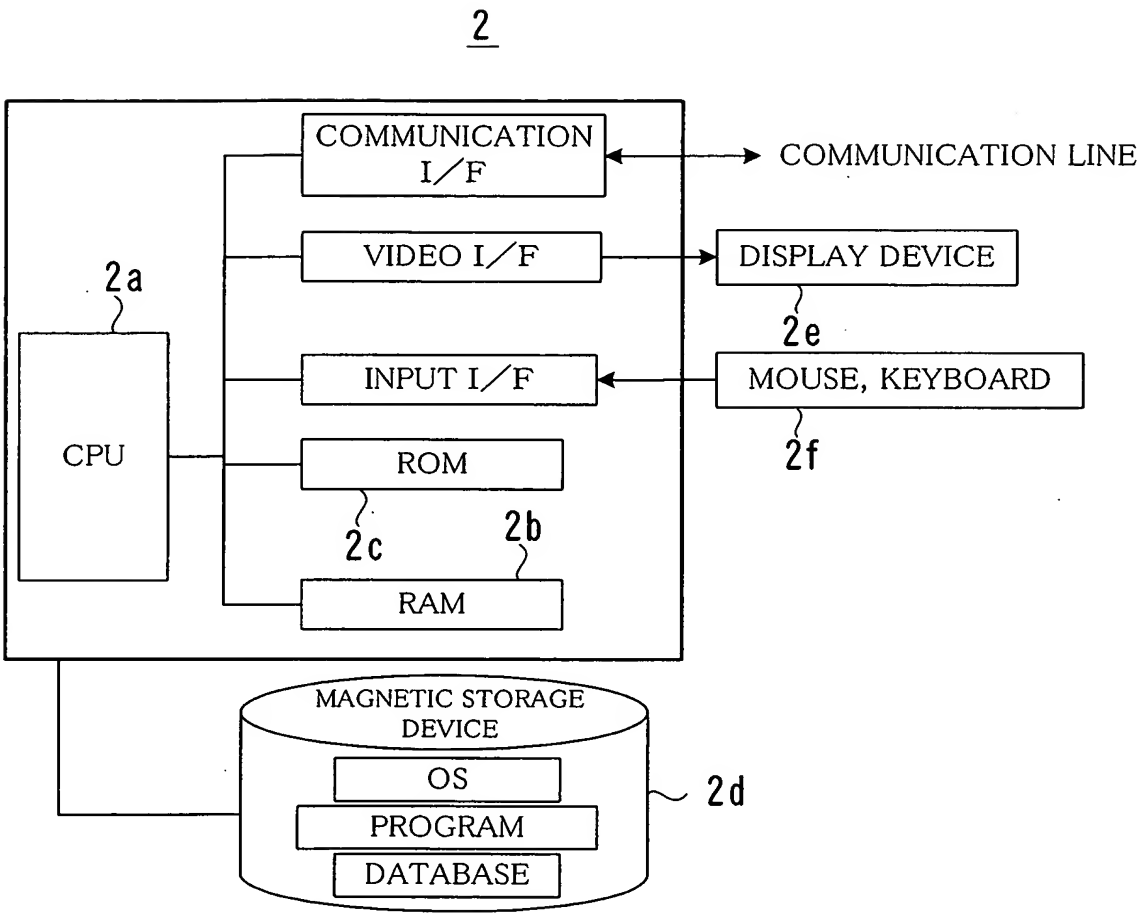

2
COMMUNICATION I/F
COMMUNICATION LINE
VIDEO I/F
DISPLAY DEVICE
2a
2e
INPUT I/F
MOUSE, KEYBOARD
CPU
ROM
2f
2c
2b
RAM
MAGNETIC STORAGE DEVICE
OS
PROGRAM
DATABASE
2d

FIG.3

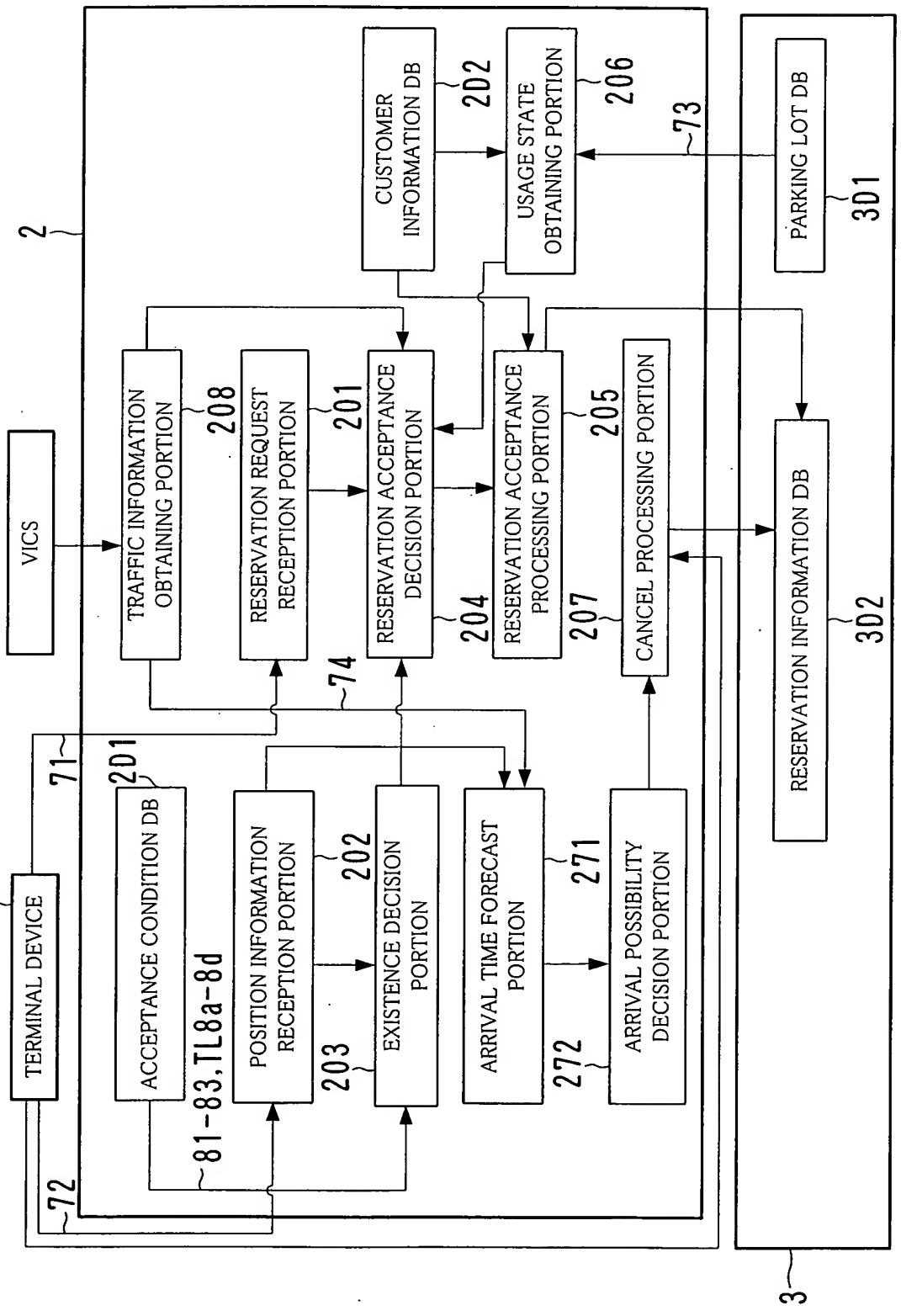

2
CUSTOMER INFORMATION DB
202
USAGE STATE OBTAINING PORTION
206
73
PARKING LOT DB
301
VICS
TRAFFIC INFORMATION OBTAINING PORTION
208
RESERVATION REQUEST RECEPTION PORTION
201
RESERVATION ACCEPTANCE DECISION PORTION
204
RESERVATION ACCEPTANCE PROCESSING PORTION
205
CANCEL PROCESSING PORTION
207
74
RESERVATION INFORMATION DB
302
71
201
ACCEPTANCE CONDITION DB
81-83,TL8a-8d
POSITION INFORMATION RECEPTION PORTION
202
203
EXISTENCE DECISION PORTION
ARRIVAL TIME FORECAST PORTION
271
272
ARRIVAL POSSIBILITY DECISION PORTION
(5)
TERMINAL DEVICE
72
3

FIG.4

TL1

| USER ID | NAME | LICENCE PLATE | CAR TYPE | ELECTRONIC MAIL ADDRESS | ... |
|---|---|---|---|---|---|
| 0001 | AAA | KOBE 55 A xx-xx | X COMPANY XXX | taro@xxx.yy.com | |
| 0002 | BBB | KYOTO 33 B xx-xx | Y COMPANY YYY | jiro@aaaaa.bb.co.jp | |
| 0003 | CCC | SHINAGAWA 34 C xx-xx | Z COMPANY ZZZ | hanako@mail.xxxxx.ne.jp | |
| 0004 | DDD | NARA 56 D xx-xx | X COMPANY XXX | ichiro@abcde.zzzzz.com | |
| 0005 | EEE | SHIGA 33 E xx-xx | Y COMPANY YYY | aiko@aaaaa.bbbbb.com | |
| ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | |

TITLE: RESERVATION ACCEPTANCE SYSTEM AND COMPUTER PROGRAM PRODUCT
INVENTORS: Jun KAKUTA et al.
SERIAL NO.: Not Yet Assigned
DOCKET NO.: 1466.1085

FIG.5

81(8)

| CONDITION NUMBER | AREA (CONDITION) |
|---|---|
| 1 | (x1,y1),(x2,y2),(x3,y3),(x4,y4) |
| 2 | (x5,y5),(x6,y6),(x7,y7),(x8,y8),(x9,y,9),(x10,y10),(x11,y11) |
| 3 | SUEHIRO CHO 3-CHOME,SUEHIRO CHO 4-CHOME, SHOWA CHO 1-CHOME |

FIG.6

82(8)

| CONDITION NUMBER | DISTANCE (CONDITION) |
|---|---|
| 1 | LESS THAN 10KM |
| 2 | LESS THAN 12KM WHEN BEING ON ROUTE 2 |
| 3 | LESS THAN 15KM WHEN BEING ON ROUTE 43 |

FIG.7

83(8)

| CONDITION NUMBER | TIME UNTIL ARRIVAL (CONDITION) |
|---|---|
| 1 | LESS THAN 10 MINUTES |
| 2 | LESS THAN 8 MINUTES WHEN BEING ON ROUTE 2 |
| 3 | LESS THAN 6 MINUTES WHEN BEING ON ROUTE 43 |

FIG.8

TL2

| PARKING SPACE No. | STATE | AVAILABLE CAR TYPE | ... |
|---|---|---|---|
| 101 | VACANT | BIG CAR | |
| 102 | PARKED | LIGHT CAR | |
| 103 | VACANT | MEDIUM SIZE OR LIGHTER CAR | |
| ⋮ | ⋮ | ⋮ | |

FIG.9

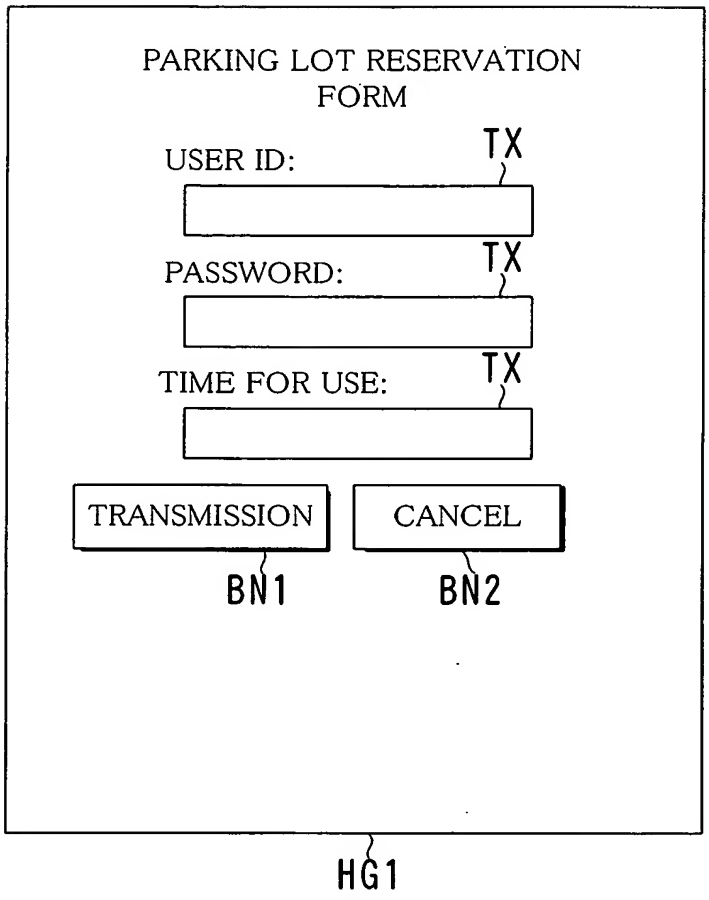

PARKING LOT RESERVATION FORM
USER ID:
TX
PASSWORD:
TX
TIME FOR USE:
TX
TRANSMISSION
CANCEL
BN1
BN2
HG1

FIG.10

TL3

| RESERVATION ACCEPTANCE ID | USER ID | LICENCE PLATE | RESERVATION ACCEPTANCE TIME | TIME FOR USE | EXPIRATION TIME | |
|---|---|---|---|---|---|---|
| Y0001 | 0001 | KOBE 55 A xx-xx | 09:13 | 2 HOURS | 09:53 | 75 |
| Y0002 | 0002 | KYOTO 33 B xx-xx | 10:05 | 8 HOURS | 11:15 | 75 |
| Y0003 | 0003 | SHINAGAWA 34 C xx-xx | 10:45 | 3 HOURS | 11:25 | 75 |
| Y0004 | 0004 | NARA 56 D xx-xx | 11:48 | 1 HOURS | 12:18 | 75 |
| Y0005 | 0005 | SHIGA 33 E xx-xx | 12:10 | 4 HOURS | 13:00 | 75 |
| ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ | |

FIG.11

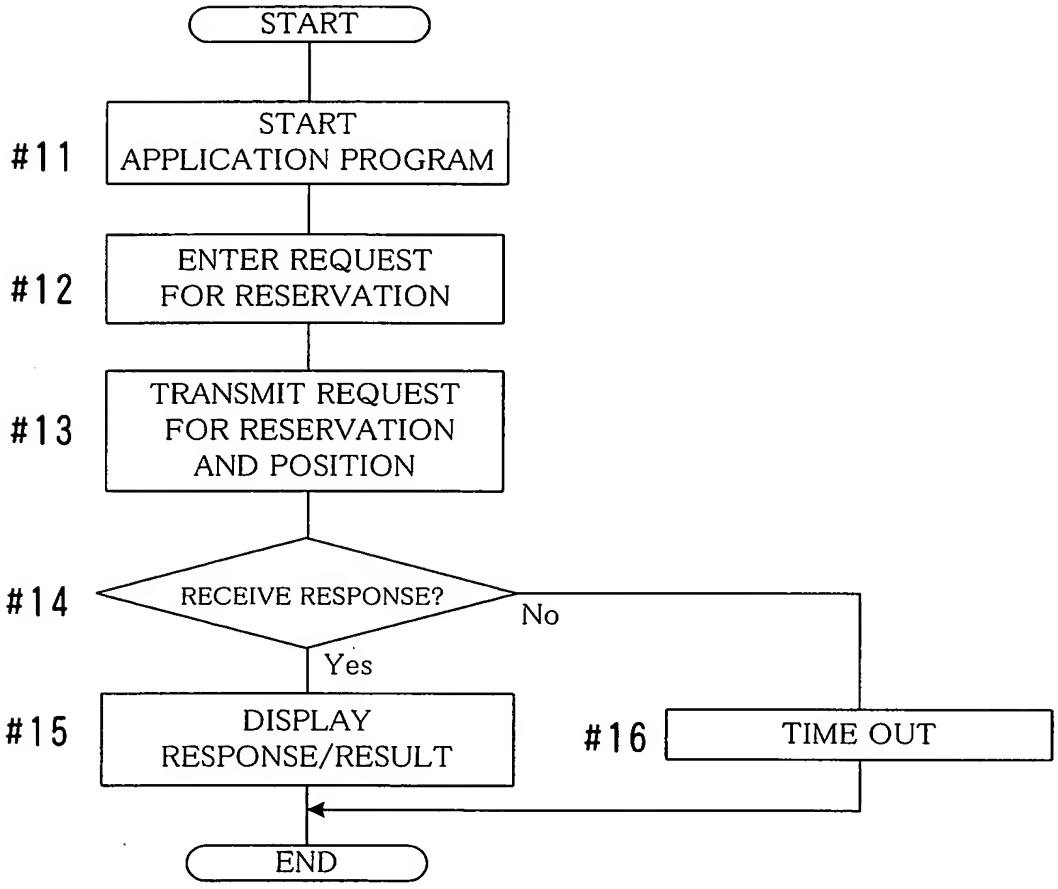

START
#11
START APPLICATION PROGRAM
#12
ENTER REQUEST FOR RESERVATION
#13
TRANSMIT REQUEST FOR RESERVATION AND POSITION
#14
RECEIVE RESPONSE?
No
Yes
#15
DISPLAY RESPONSE/RESULT
#16
TIME OUT
END

FIG.12

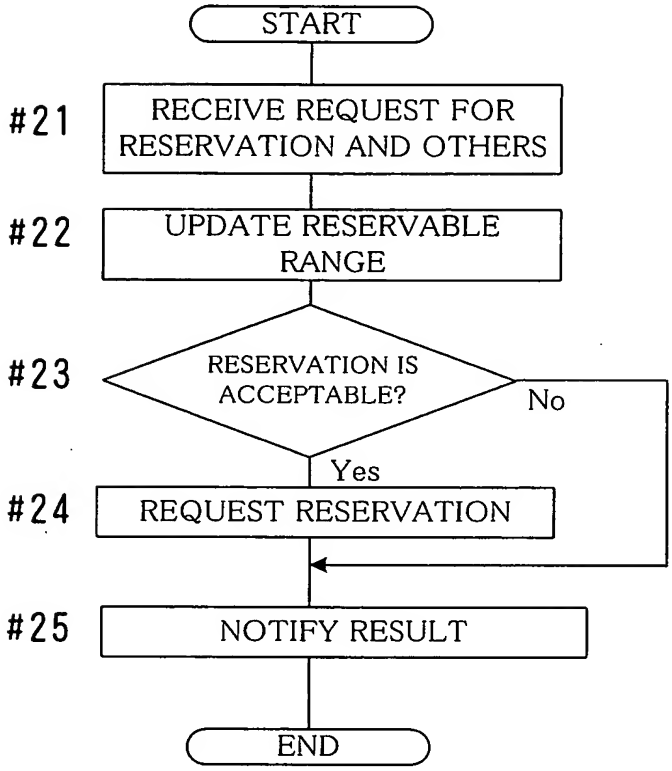

START
#21
RECEIVE REQUEST FOR RESERVATION AND OTHERS
#22
UPDATE RESERVABLE RANGE
#23
RESERVATION IS ACCEPTABLE?
No
Yes
#24
REQUEST RESERVATION
#25
NOTIFY RESULT
END

FIG.13A

TL8a

| LEVEL | RATIO OF VACANCY (PARAMETER) | DISTANCE |
|---|---|---|
| 1 | UNDER 5% | LESS THAN 3KM |
| 2 | OVER 5% AND UNDER 10% | LESS THAN 5KM |
| 3 | OVER 10% AND UNDER 15% | LESS THAN 10KM |
| 4 | OVER 15% AND UNDER 20% | LESS THAN 15KM |
| 5 | OVER 20% | LESS THAN 25KM |

FIG.13B

TL8b

| LEVEL | TIME FOR USE (PARAMETER) | DISTANCE |
|---|---|---|
| 1 | UNDER 30 MINUTES | LESS THAN 3KM |
| 2 | OVER 31 MINUTES AND UNDER 60 MINUTES | LESS THAN 5KM |
| 3 | OVER 61 MINUTES AND UNDER 120 MINUTES | LESS THAN 10KM |
| 4 | OVER 121 MINUTES AND UNDER 240 MINUTES | LESS THAN 15KM |
| 5 | OVER 241 MINUTES | LESS THAN 25KM |

FIG.13C

TL8c

| LEVEL | FORECASTED DEMAND (PARAMETER) | DISTANCE |
|---|---|---|
| 1 | OVER 100 CARS/HOUR | LESS THAN 3KM |
| 2 | 99-70 CARS/HOUR | LESS THAN 5KM |
| 3 | 69-40 CARS/HOUR | LESS THAN 10KM |
| 4 | 39-20 CARS/HOUR | LESS THAN 15KM |
| 5 | UNDER 19 CARS/HOUR | LESS THAN 25KM |

FIG.13D

TL8d

| LEVEL | DAY OF THE WEEK, TIME ZONE (PARAMETER) | DISTANCE |
|---|---|---|
| 1 | HOLIDAY DAYTIME (9:00-17:00) | LESS THAN 3KM |
| 2 | HOLIDAY NIGHT (17:00-21:00) | LESS THAN 5KM |
| 3 | WEEKDAY DAYTIME (9:00-17:00) | LESS THAN 10KM |
| 4 | WEEKDAY NIGHT (17:00-21:00) | LESS THAN 15KM |
| 5 | MIDNIGHT AND EARLY-MORNING (21:00-9:00) | LESS THAN 25KM |

FIG.14

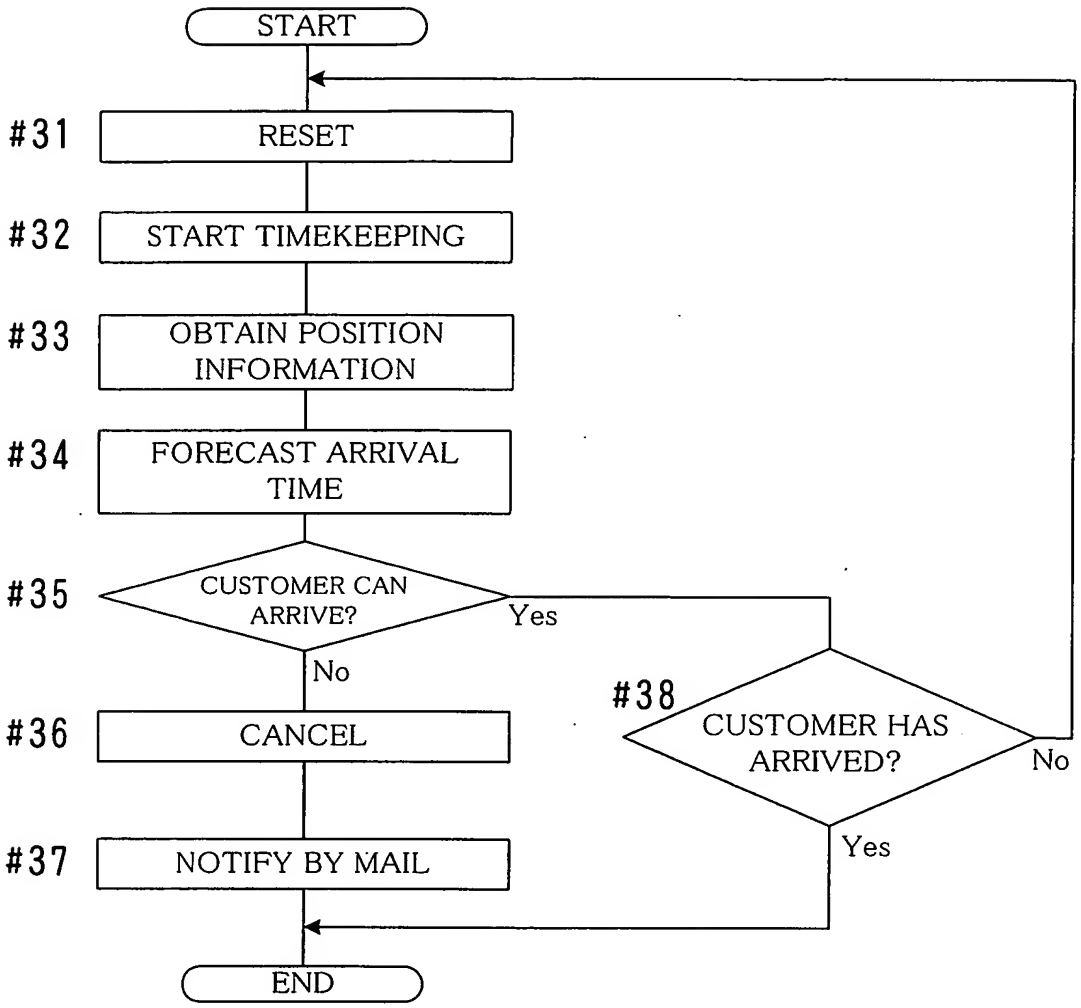

START
#31
RESET
#32
START TIMEKEEPING
#33
OBTAIN POSITION INFORMATION
#34
FORECAST ARRIVAL TIME
#35
CUSTOMER CAN ARRIVE?
Yes
No
#36
CANCEL
#37
NOTIFY BY MAIL
#38
CUSTOMER HAS ARRIVED?
No
Yes
END

FIG.15

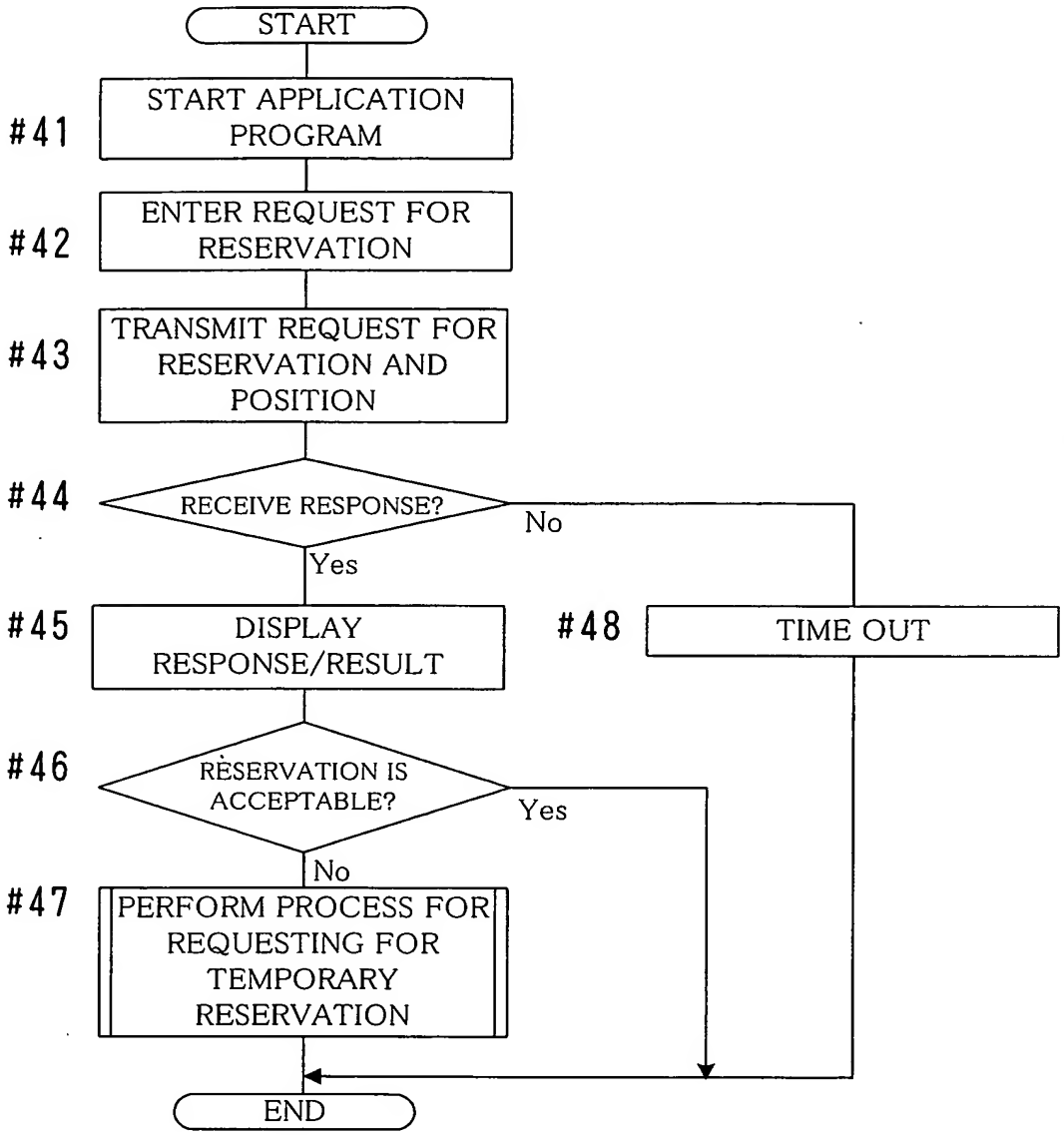

START
#41
START APPLICATION PROGRAM
#42
ENTER REQUEST FOR RESERVATION
#43
TRANSMIT REQUEST FOR RESERVATION AND POSITION
#44
RECEIVE RESPONSE?
No
Yes
#45
DISPLAY RESPONSE/RESULT
#48
TIME OUT
#46
RESERVATION IS ACCEPTABLE?
Yes
No
#47
PERFORM PROCESS FOR REQUESTING FOR TEMPORARY RESERVATION
END

FIG.16

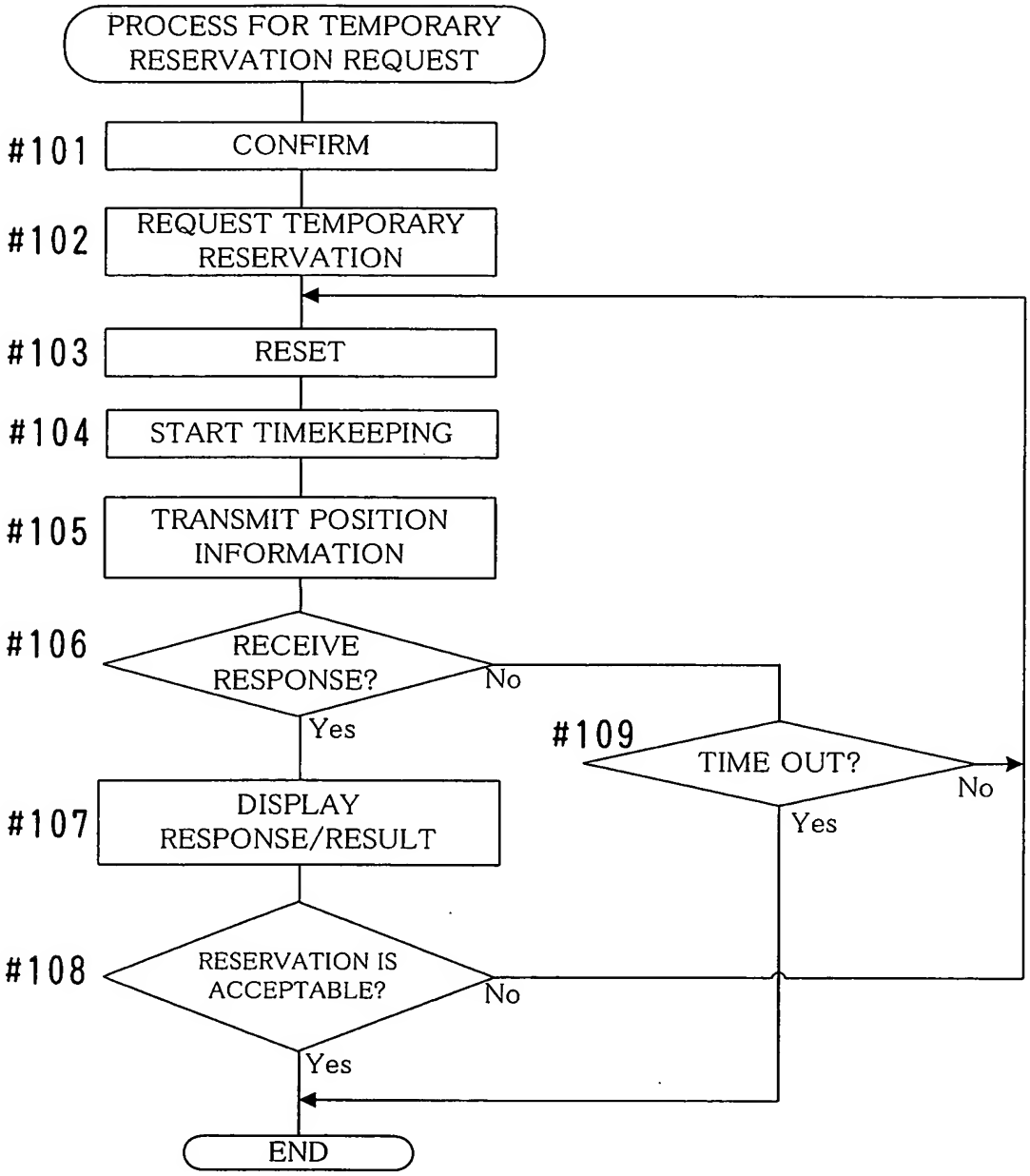

PROCESS FOR TEMPORARY RESERVATION REQUEST
#101
CONFIRM
#102
REQUEST TEMPORARY RESERVATION
#103
RESET
#104
START TIMEKEEPING
#105
TRANSMIT POSITION INFORMATION
#106
RECEIVE RESPONSE?
No
Yes
#109
TIME OUT?
No
Yes
#107
DISPLAY RESPONSE/RESULT
#108
RESERVATION IS ACCEPTABLE?
No
Yes
END

FIG.17

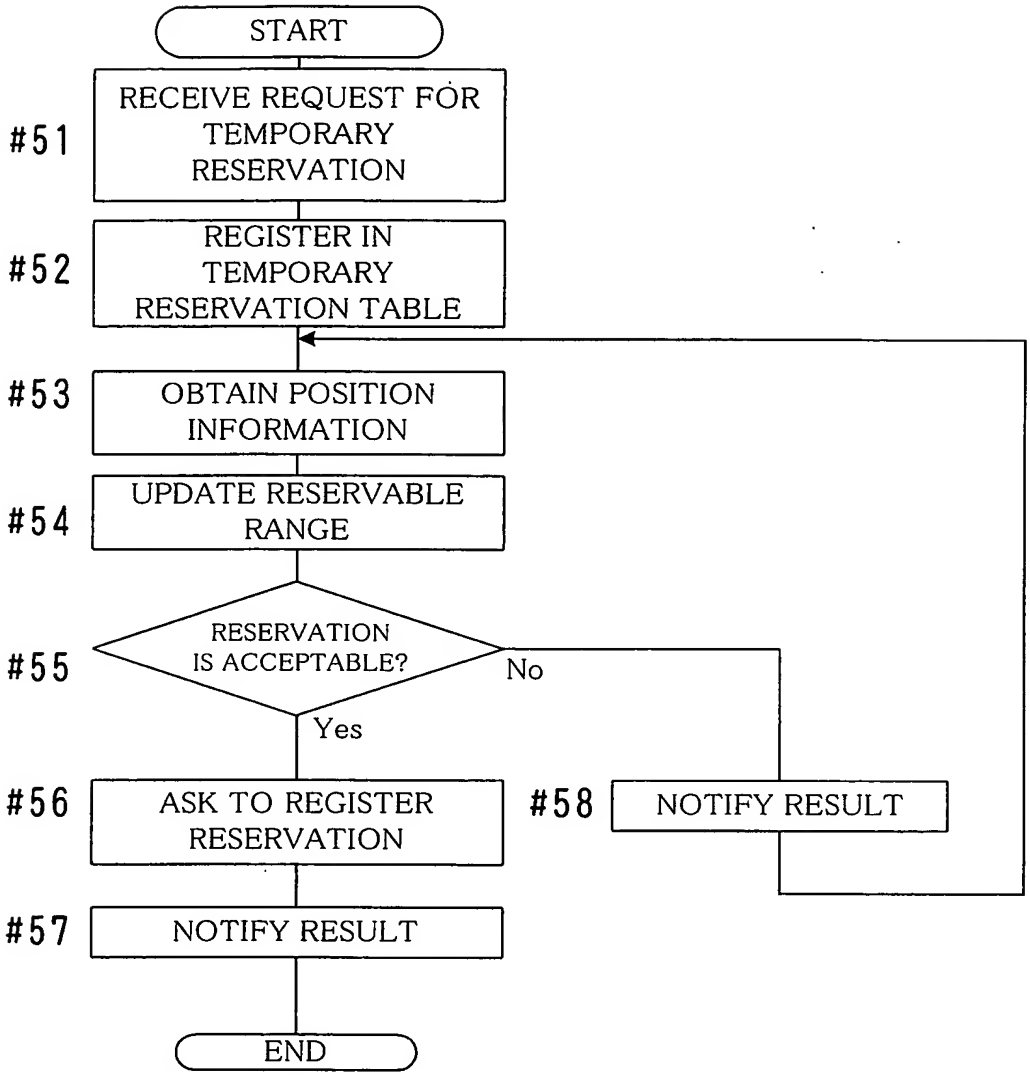

START
#51
RECEIVE REQUEST FOR TEMPORARY RESERVATION
#52
REGISTER IN TEMPORARY RESERVATION TABLE
#53
OBTAIN POSITION INFORMATION
#54
UPDATE RESERVABLE RANGE
#55
RESERVATION IS ACCEPTABLE?
No
Yes
#56
ASK TO REGISTER RESERVATION
#58
NOTIFY RESULT
#57
NOTIFY RESULT
END

FIG.18

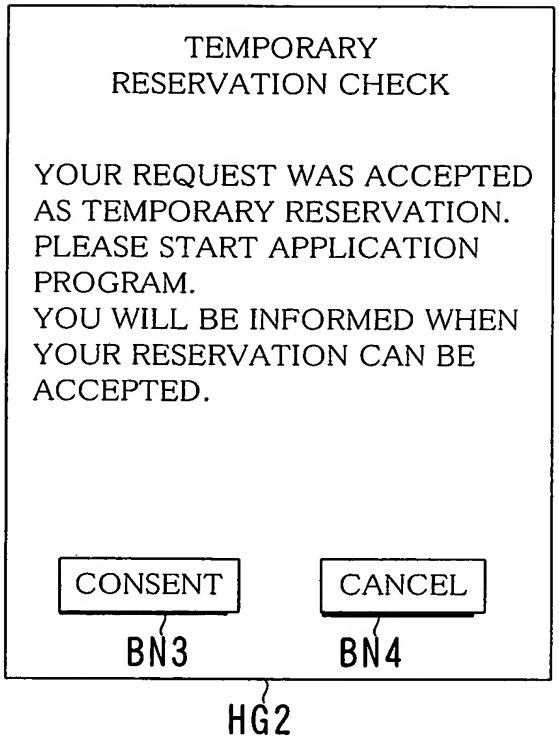
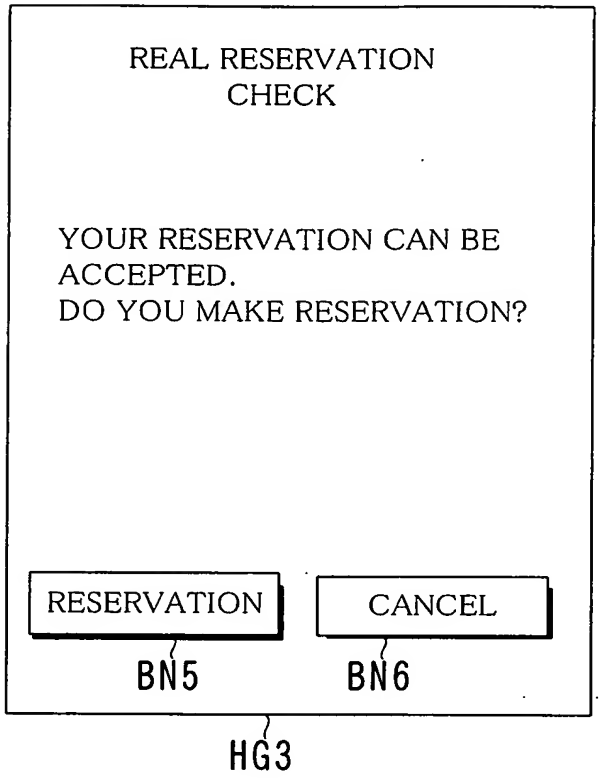

TEMPORARY
RESERVATION CHECK
YOUR REQUEST WAS ACCEPTED AS TEMPORARY RESERVATION. PLEASE START APPLICATION PROGRAM.
YOU WILL BE INFORMED WHEN YOUR RESERVATION CAN BE ACCEPTED.
CONSENT
CANCEL
BN3
BN4
HG2

FIG.19


REAL RESERVATION CHECK
YOUR RESERVATION CAN BE ACCEPTED.
DO YOU MAKE RESERVATION?
RESERVATION
CANCEL
BN5
BN6
HG3